Seattle's Climate Strategy Pays Off

By Jonathan Hiskes

Facing the threat of water shortages stemming from global warming, Seattle has changed its energy and water policies. ©*AP Images*

It is difficult to imagine a water shortage in Seattle, Washington. In this famously drizzly city in the northwestern United States, views of Puget Sound and freshwater lakes beckon from almost every hilltop. Two snow-capped mountain ranges, the Olympics and the Cascades, rise on the city's eastern and western flanks.

Yet the threat of water shortages — triggered by glacier melt and accelerated by warming temperatures — has inspired the city of 609,000 to embark on one of the most ambitious climate protection plans in the nation. The city has launched plans to cut energy waste by insulating and retrofitting buildings, to reduce driving by building new transit networks, and to position itself as a hotbed of clean-energy jobs and innovation.

The results have been clear for several years: In 2008 — four years ahead of a deadline —Seattle met the Kyoto Protocol goal of reducing its greenhouse gas emissions 7 percent below 1990 levels set for the United States. Seattle's leadership inspired more than 1,000 other U.S. cities and towns to agree to the same target.

Former Mayor Greg Nickels, who led the city from 2002 through 2009, said it all started with dire warnings about water supplies.

"When I became mayor, climate was not on my list of to-dos," he said. "I filled some potholes and had to deal with the aftermath of 9/11, trying to put people back to work."

"I assumed a couple of things: One, that climate change was something that was off in the future and would happen to other places first. And two, that the federal government was doing something about it. I was wrong."

Mayor Leads The Way

The urgency of the threat hit home, city insiders say, during a senior staff meeting in January 2005. The city's utilities director told Nickels that melting glaciers could create water shortages much sooner than the public expected. And because most of the city's power supply comes from hydroelectric dams, water shortages could also create an energy crisis.

At the same time, 141 countries were about to ratify the Kyoto climate treaty, without the participation of the United States. Nickels told his staff that Seattle had to step forward even if the federal government wasn't ready.

"He put his hand down and looked across the table, and said, 'We aren't thinking big enough,'" recalled Mike Mann, the former director of the city's Office of Sustainability and Environment. When the mayor mentioned signing the Kyoto treaty, Mann said, "Staff members' jaws kind of dropped as they realized he was dead serious."

Nickels launched the U.S. Mayors Climate Protection Agreement to enlist other mayors in committing to the greenhouse gas emissions targets. Later that year he traveled to the United Nations climate talks in Montreal to spread the message that plenty of local leaders in the United States were prepared to act on climate change.

Back at home, he had to convince Seattleites that it was time for bold steps. Most of Seattle's electricity comes from hydroelectric dams, which have a much lower carbon footprint — an estimate of how much carbon dioxide is produced by an entity such as a company — than coal- or gas-fired power plants. That means the bulk of the city's greenhouse gas emissions come from transportation, and that replacing car trips with transit is key to cutting the city's carbon footprint.

Density: A New Concept For Seattle

Nickels understood that compact, walkable neighborhoods were necessary to support bus and light-rail networks. But while the city abounds with nature lovers drawn to the nearby mountains and waterways, many of them don't see the connection between protecting the environment and higher housing densities in their urban neighborhoods. Seattle is one of the largest American cities with more single-family homes than high-density multi-unit dwellings.

"I don't believe citizens have fully embraced the importance of dense, compact neighborhoods," said Mann, who now works as an environmental sustainability consultant to the city.

For example, a plan to allow taller buildings near a new light-rail station in the Mount Baker neighborhood has faced opposition from local residents concerned that greater density would bring traffic congestion and crime. "People need yards and open space to be mentally healthy," Pat Murakami, a nearby resident, told the Seattle Times. "Are we supposed to live like sardines crammed into a can?"

To make the case for higher urban density, the city has had the help of an energetic group of sustainability advocates. Seattle-based writer Alex Steffen promotes "bright green urbanism," the idea that marrying environmental values with technology and smart land use allows city neighborhoods to be more social, healthy and prosperous than auto-dependent suburbs. Local nonprofits Climate Solutions, Great City and the Sightline Institute work to link the environmental leanings of Seattleites with large-scale public plans.

As mayor, Greg Nickels was instrumental in devising a climate strategy for Seattle and in reaching out to other U.S. cities in the mid-2000s. *©AP Images*

"I want to participate in a real revolution, not make futile gestures," Climate Solutions policy director K.C. Golden said. "That's why retreating back to just private and local action alone won't work."

The centerpiece of Seattle's green urban vision has been the remaking of the South Lake Union neighborhood near downtown. A decade ago, the site was an expanse of car lots and underused warehouses. Through partnerships between the city and private investors, it has become a bustling high-tech corridor anchored by nine buildings that house the headquarters of online retailer Amazon.com. The transformation has worked, said Mann, because it included things that appeal to residents and office workers: a streetcar line, shops and restaurants, and a waterfront park where a Navy shipyard once stood.

"When you increase [urban] density, it's got to work for people," Mann said. "It's got to have amenities and public spaces and not just big Soviet-style housing towers that people don't want."

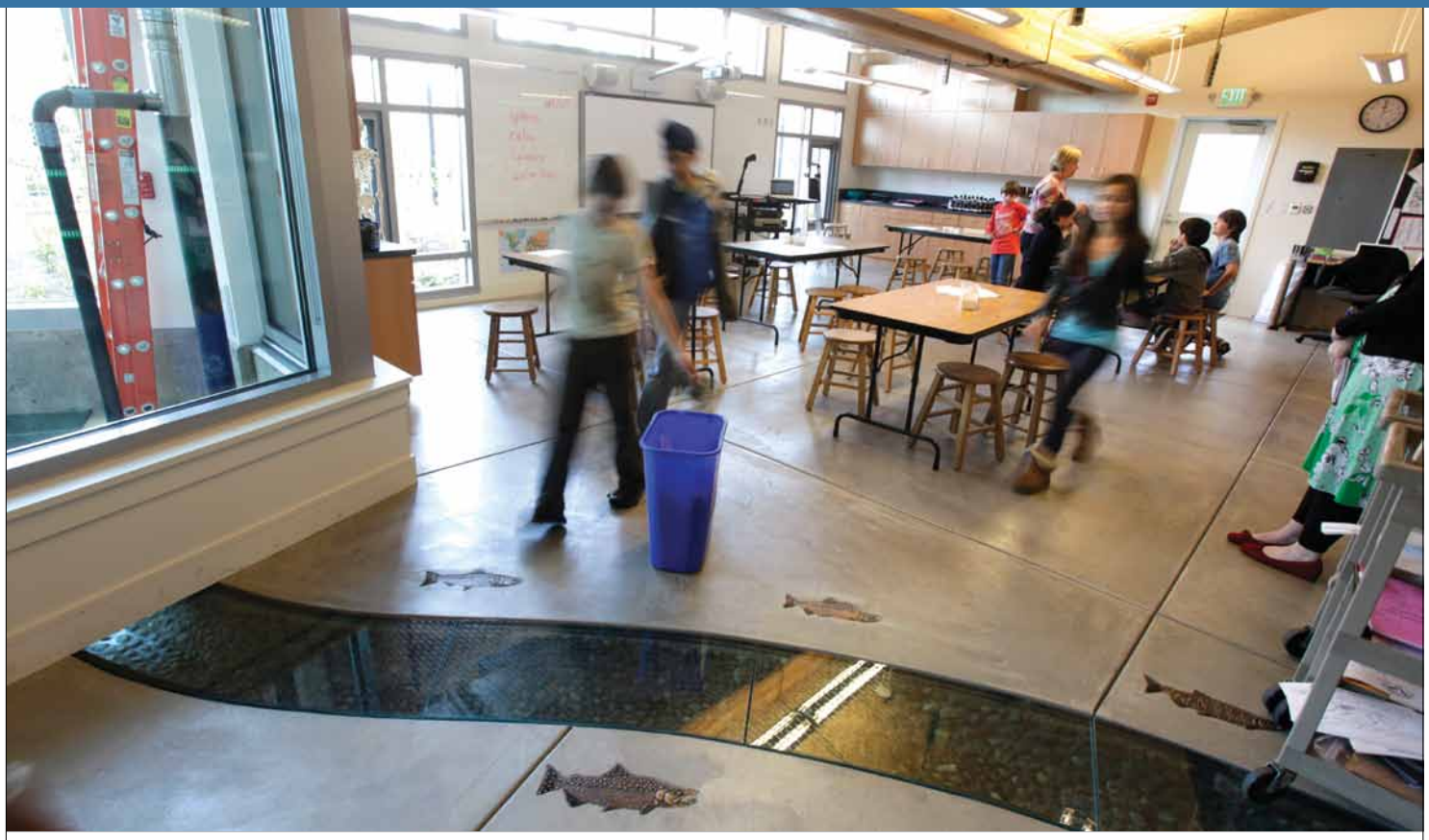
Cars Versus Trains

Elsewhere, reducing transportation emissions has been more difficult. The city and state are poised to begin construction on a multi-billion-dollar road tunnel beneath the downtown waterfront. The plan includes no room for rail lines, and sustainability advocates say investing so heavily in an auto-only project is short-sighted.

Nickels, after negotiating to trim the size of the tunnel, agreed to support it. Many believe that decision cost him the environmental vote in the 2009 election, leading to an unexpected victory by environmental organizer Mike McGinn.

But the progress of the campaign Nickels started has continued under the new mayor. The city is building out a 15-year light-rail plan that Nickels promoted and voters approved. Recycling and compost rates are among the highest in the nation. Cruise ships bound for Alaska now plug into the electric grid while at port, rather than idling their engines along the waterfront.

The city has invested in public transportation, including light rail, to reduce the source of most of its greenhouse gas emissions — cars. ©*AP Images*



The Bertschi elementary school in Seattle is among several dozen schools nationwide that recycle rainwater and wastewater. *©AP Images*

Leaky Buildings Get Makeover

Perhaps most promising, the city has launched an innovative program to reduce energy waste from leaky buildings. In the United States, buildings account for nearly 40 percent of greenhouse gas emissions nationwide. Seattle's Community Power Works program, backed by $20 million in federal economic stimulus (American Recovery and Reinvestment Act) funds, aims to fix several of the barriers that keep owners from retrofitting their buildings.

First, it offers low-cost ($95) energy assessments to help home and business owners understand where their buildings are wasting heat and electricity. Second, it partners with the community investment institution Enterprise Cascadia to offer 20-year loans for energy-efficiency investments. This solves the finance dilemma for many homeowners — investments such as good insulation and duct sealing pay for themselves over time but carry steep upfront costs.

Finally, Community Power Works is piloting a "carbon reduction incentive fund," essentially a reward-based carbon market that pays building owners subsidies based on the amount of carbon dioxide emission savings they achieve. Community Power Works is modest in scope; it aims to retrofit 2,000 homes, along with businesses and hospitals. But by testing out new ideas, its full influence could be much greater.

"Cities are the location of a lot of emissions because they're centers of industry and population," Mann said. "But they're also laboratories for solutions. They're going to generate the ideas the federal government will come back to, at some point, out of necessity."

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